

## ABSTRACT

A motor drive unit is adapted to detect a motor lock-up condition (in which an electric motor is accidentally locked during driving) based on the fact that motor drive current increases in that event. Then, a capacitor for generating a voltage signal is charged with an arbitrarily adjustable charging current to overcome the motor lock-up. To do this, an IC is formed to incorporate therein such components as a first discharging circuit for discharging the electric charge of the capacitor and a hysteresis-type comparison circuit for comparing the charging current with a threshold level to thereby adjust the charging current suitable for the motor used. Such a versatile IC as described above enables adjustment of the motor startup trial period for individual motors having different characteristics.